THE COST OF KNOWLEDGE BOYCOTT
AND THE
FUTURE OF ACADEMIC PUBLISHING

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THE ISSUES

- COST OF KNOWLEDGE BOYCOTT AND ITS PRECEDENTS

- WHY THE CURRENT MODEL IS FAILING ACADEMICS

- NEW IDEAS AND INITIATIVES

ACADEMIC SPRING

- 21 January 2012: Tim Gowers announces on his blog that he will no longer *"have anything to do with Elsevier journals"*

- 23 January 2012: Tyler Neylon sets up *Cost of Knowledge* website: boycott has grown to over 13,000 names *(including 21 from McMaster)*

- *27* February 2012: *Elsevier* withdraws support for RWA and bill dies

- mid-2012: UK, EU governments decide all publicly funded scientific research *must* be freely available

Gowers's Weblog
Mathematics related discussions

« SOPA — my part in its downfall   http://thecostofknowledge.com »

Elsevier — my part in its downfall

The Dutch publisher Elsevier publishes many of the world's best known mathematics journals, including Advances in Mathematics,

So I am not only going to refuse to have anything to do with Elsevier journals from now on, but I am saying so publicly. I am by no means the first person to do this, but the more of us there are, the more socially acceptable it becomes, and that is my main reason for writing this post.

The Cost of Knowledge

13012 Researchers Taking a Stand. *See the list*

Academics have protested against Elsevier's business practices for years with little effect. These are some of their objections:

1. They charge exorbitantly high prices for subscriptions to individual journals.

2. In the light of these high prices, the only realistic option for many libraries is to agree to buy very large "bundles", which will include many journals that those libraries do not actually want. Elsevier thus makes huge profits by exploiting the fact that some of their journals are essential.

3. They support measures such as SOPA, PIPA and the ~~Research Works Act~~, that aim to restrict the free exchange of information.

The key to all these issues is the right of authors to achieve easily-accessible distribution of their work. If you would like to declare publicly that you will not support any Elsevier journal unless they radically change how they operate, then you can do so by filling in your details on this page.

More information:

- Statement of Purpose
- PolyMath journal publishing reform page

Read our blog, and follow the boycott on Twitter here.

Add your name to the list.

First and Last Name

Affiliation

Email

Subject   Mathematics

Comments

Link

I plan to refrain from:
☐ publishing   ☐ refereeing   ☐ editorial work

Add My Name

A LONG STRUGGLE

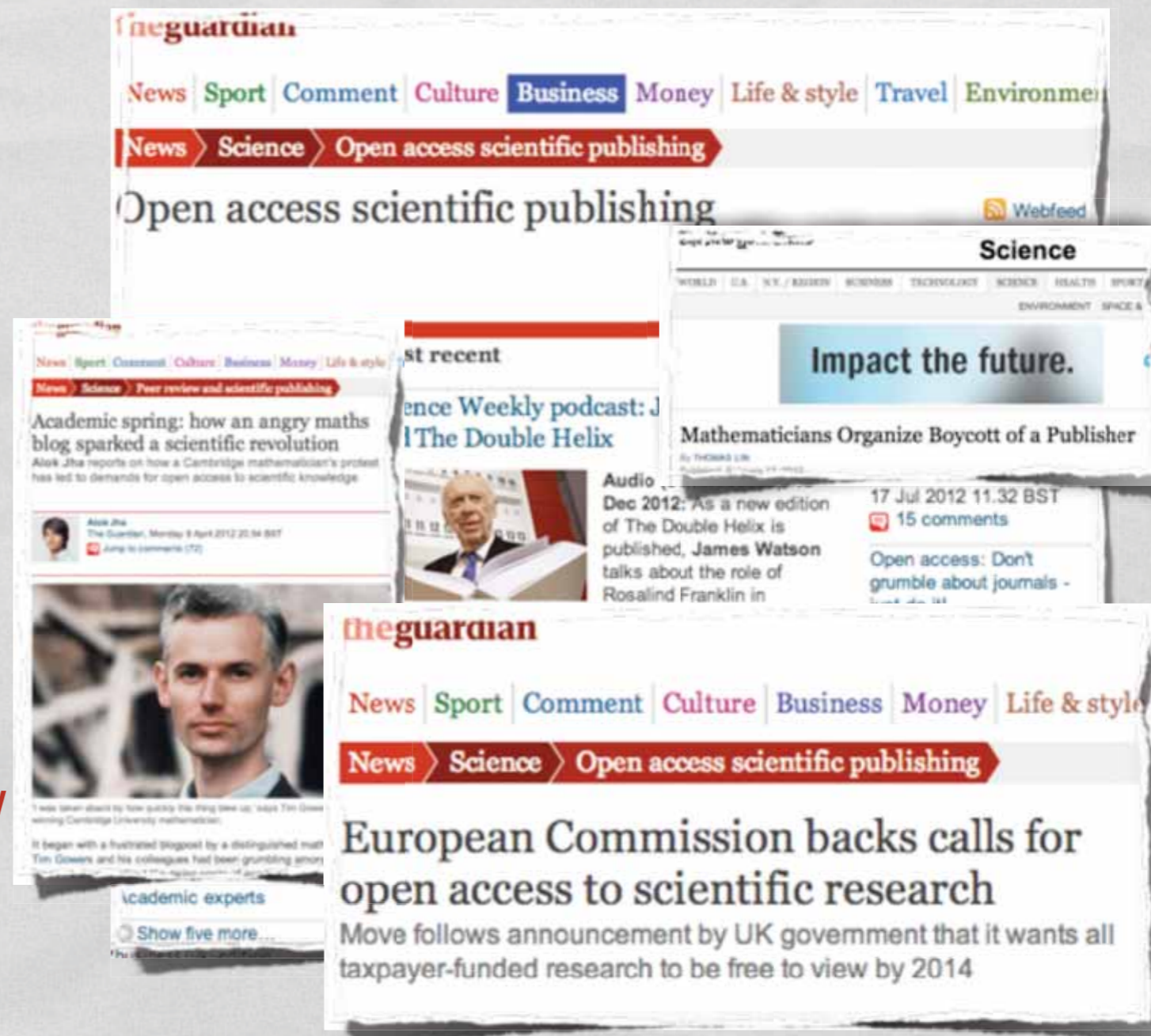## Jumping Ship: *Topology* Board Resigns

Allyn Jackson

"Why should one spend one's life maintaining a top-class journal—for Elsevier?" This rhetorical question, posed by Martin Bridson of Imperial College London, expresses one strong current of feeling within the mathematical community. Bridson together large numbers of journals—even a couple of thousand, in Elsevier's case—and sell them to institutions for a single price. Around this time, the perception deepened within some segments of the mathematical community, that Elsevier

- 1990s: efforts by Rob Kirby, Donald Knuth, etc.

- 2000: 34,000 signature boycott led to *PLoS* electronic journals *(now biggest biomedical journals in the world)*

- 2007: resignation of editorial boards of *Topology, K-theory*

THIS TIME IS DIFFERENT

- Huge press attention *(especially The Guardian)*

- Advances in technology provide other options

- Behaviour of commercial publishers increasingly egregious

- Governments and funding agencies realize they are not getting value for money *(PubMed Central example)*

THE CASE AGAINST ELSEVIER

- *Exorbitant* costs (about $7000 per article, compared with $7 for arXiv), huge profits (36%), abusive negotiating tactics with libraries *(e.g. bundling)*

- Claims scientists "work" for *Elsevier* and that *Elsevier* "owns" research published in their journals

- Lobbies for restrictive intellectual property legislation *(RWA, PIPA, SOPA,...)*

- Unfair, vague and confusing copyright policies *(e.g. "Sponsored Article")*

- Unethical publishing practices...

Series: The networker

Academic publishing doesn't add up

The world of university research has long been held to ransom by academic publishers charging exorbitant prices for subscriptions – but that may all be about to end

John Naughton
The Observer, Sunday 22 April 2012
Jump to comments (69)

Tim Gowers, the Cambridge mathematician taking a stand against the big names behind academic journals. Photograph: Karen Robinson

As one of the characters in George Bernard Shaw's
professions are conspiracies against

UNETHICAL PRACTICES

- Coercive citation to increase impact factor

- Restricting re-use and distribution of knowledge *(prevents text mining)*

- Falsifying publication times *(revise and resubmit)*

- Stealing content *(re-sell images)*

- Fake journals *(e.g. Chaos, Solitons & Fractals, Australasian Journal of Bone & Joint Medicine,...)*

- Paying authors to write enthusiastic reviews of their own books on Amazon

Before the figures, there should be pages listing the figure captions, double-spaced also. Do not capitalize every word.

21. You must cite, and include in the references, some JFS papers, including some published recently (in 2010 and 2011).

Sauropod Vertebra Picture of the Week
SV-POW! ... All sauropod vertebrae, except when we're talking about Open Access

Dear Royal Society, please stop lying to us about publication times
October 3, 2012

« Springergate: rebadging and reselling Wiley content
#springergate: update from Bettina Goerner and some "explanations". I urge that scientific images should be FREE – as in speech – for everyone. »

Springergate: Systematic "copyglitch" appropriation of Wikimedia content

Australasian Journal of Bone & Joint Medicine

From Wikipedia, the free encyclopedia

The *Australasian Journal of Bone & Joint Medicine* (originally titled the *Australasian Journal of Musculoskeletal Medicine*[1]) was a periodical presented in the style of a scientific journal, published by Elsevier but established and funded by pharmaceutical company Merck. Publication began in 2002,[1] and the last known issue appeared in 2005.[2][3] According to *The Scientist*.

THE CASE AGAINST THE BOYCOTT

- It's not worth my time worrying about it *(apathy)*

- They're all just as bad

- *Elsevier* saves small math journals when it buys publishers

- Unfair to colleagues who are editors and submit articles

- Harms junior colleagues who *must* publish in high-ranked *Elsevier* journals for tenure and promotion

THE BASIC PROBLEM

- Interests of publishers and academics *not* aligned

- **Publishers** make money by controlling access to knowledge they have not created and have obtained for free *(break into components "monetized" separately)*

- **Academics** *(and funding agencies)* want knowledge they have created *(or funded)* freely accessible

The goal of the boycott is not to make Elsevier change, but to encourage scientists to publish in ways that help, rather than harm, science and scientists

WHY A CRISIS NOW?

- Publishers taking advantage of technology to restrict access, re-sell content and control use

- Costs unsustainable for libraries

- Publishers now provide little *(essential)* value added

- Cheaper alternatives now available *(e.g. free journal management systems like Annotum, PKP)*

WHY DOES OPEN ACCESS MATTER?

- Per article access is *prohibitive*: $30-$50

- Not all universities subscribe to all journals

- Cannot substitute accessible article for inaccessible one!

- General public, civil servants and journalists needs to evaluate scientific literature directly *(e.g. medicine, public health, ecology, climate change, transportation, urban planning, ...)*

- (Small) businesses need access to latest research

WHAT IS OPEN ACCESS?

Reader Rights	Reuse Rights	Copyrights	Author Posting Rights	Automatic Posting	Machine Readability	Access
Free readership rights to all articles immediately upon publication	Generous reuse & remixing rights (e.g., CC BY license)	Author holds copyright with no restrictions	Author may post any version to any repository or website	Journals make copies of articles automatically available in trusted third-party repositories (e.g., PubMed Central) immediately upon publication	Article full text, metadata, citations, & data, including supplementary data, provided in community machine-readable standard formats through a community standard API or protocol	OPEN ACCESS
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- Insist publishers sign, or explain why they can't

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www.arl.org/sparc/

WHAT'S NEXT?

- New *economic models* to fund evaluation, distribution, and archiving of scientific knowledge under open access

- New *forms* of academic communication

WHO PAYS?

- **Current model** subscription *(usually bundled)* paid by libraries, often ~~open~~ Some "*Diamond*" journals ~~ges~~ paid by authors. *(Elsevier, Spr* ... *of all scientific articles in* ...

- **Op** ...
  to author, freely available ...
  subscription, author pays ...
  immediately), diamond ...
  by institutions, freely avail ...

Homology, Homotopy and Applications, 1991

The New York Journal of Mathematics, 1994,

The Electronic Journal of Combinatorics, 1994,

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Discrete Mathematics and Theoretical Computer Science, 1997

Journal of Graph Algorithms & Applications, 1997

INTEGERS, 2000

Theory of Computing, 2005

Ars Mathematica Contemporanea, 2008

Contributions to Discrete Mathematics, 2006

Journal of Computational Geometry, 2010

ACADEMIC PUBLISHING IN FLUX

- Publishers trying to impose "gold" model for Open Access

- Currently ranges from $120 *(scholarly society)* to $3000 *(Elsevier)* per article

- *PeerJ* has lifetime deal of one paper per year for $99!

- Publishers now recruiting authors *(predatory/vanity publishers)*

The Economist

Log in | Register | Subscribe   Digital & mobile | Events | Topics A-Z | Newsl

World politics | Business & finance | Economics | Science & technology | Culture | Blogs | De

Scientific publishing
Brought to book
Academic journals face a radical shake-up
Jul 21st 2012 | from the print edition   Like 1.1k Tweet 723

IF THERE is any endeavour whose fruits should be freely available, that endeavour is surely publicly financed science. Morally, taxpayers who wish to should be able to read about it

ALTERNATIVES TO AUTHOR-PAYS

- **Archive** subject-based repositories funded by subscription, run as non-profits by scholarly societies *(e.g. arXiv, PubMed Central)*

- **Peer-review** direct commercial support, indirect institutional support, direct government support

- Differential pricing based on use

- Change tenure and promotion to favour quality over quantity *(current system encourages unlimited production)*
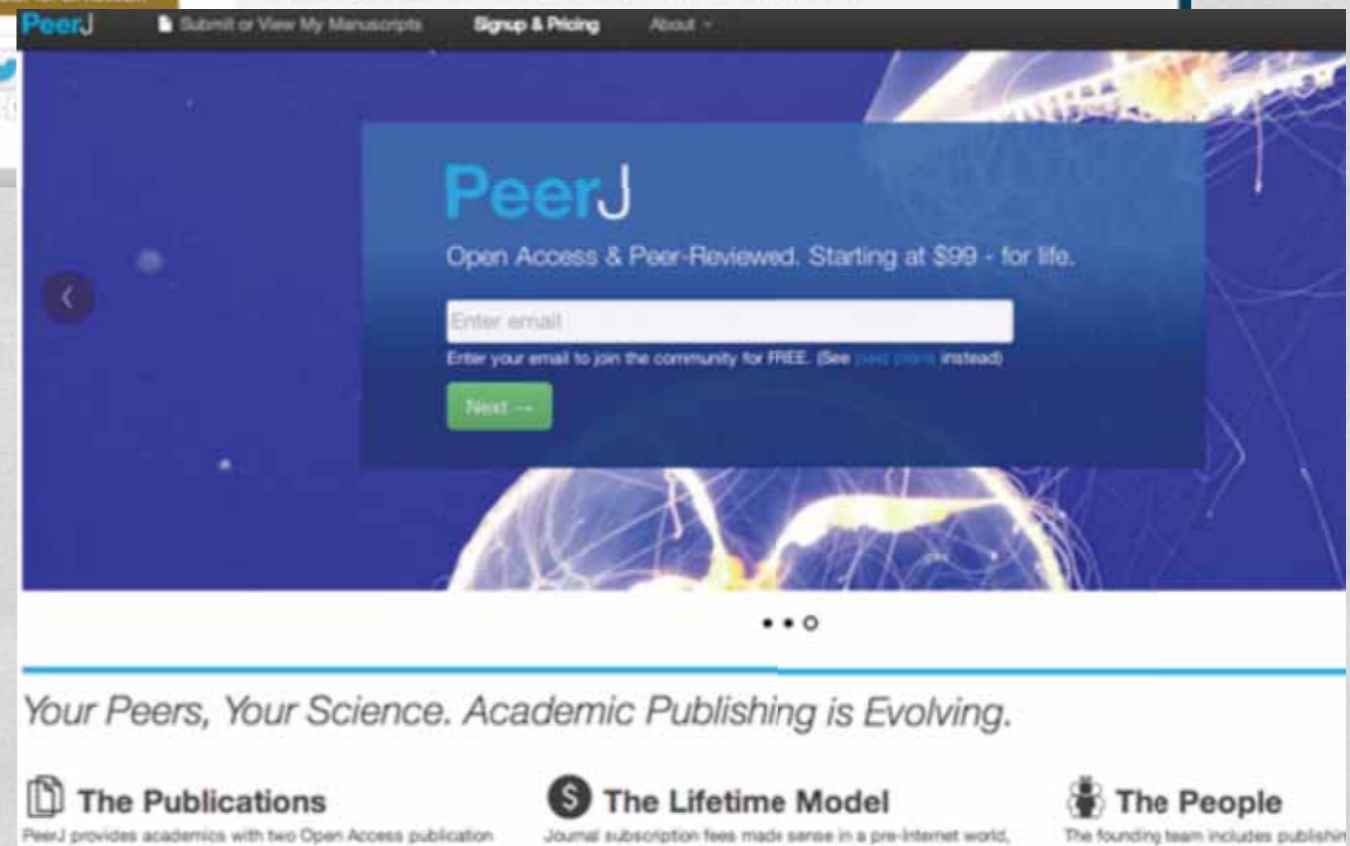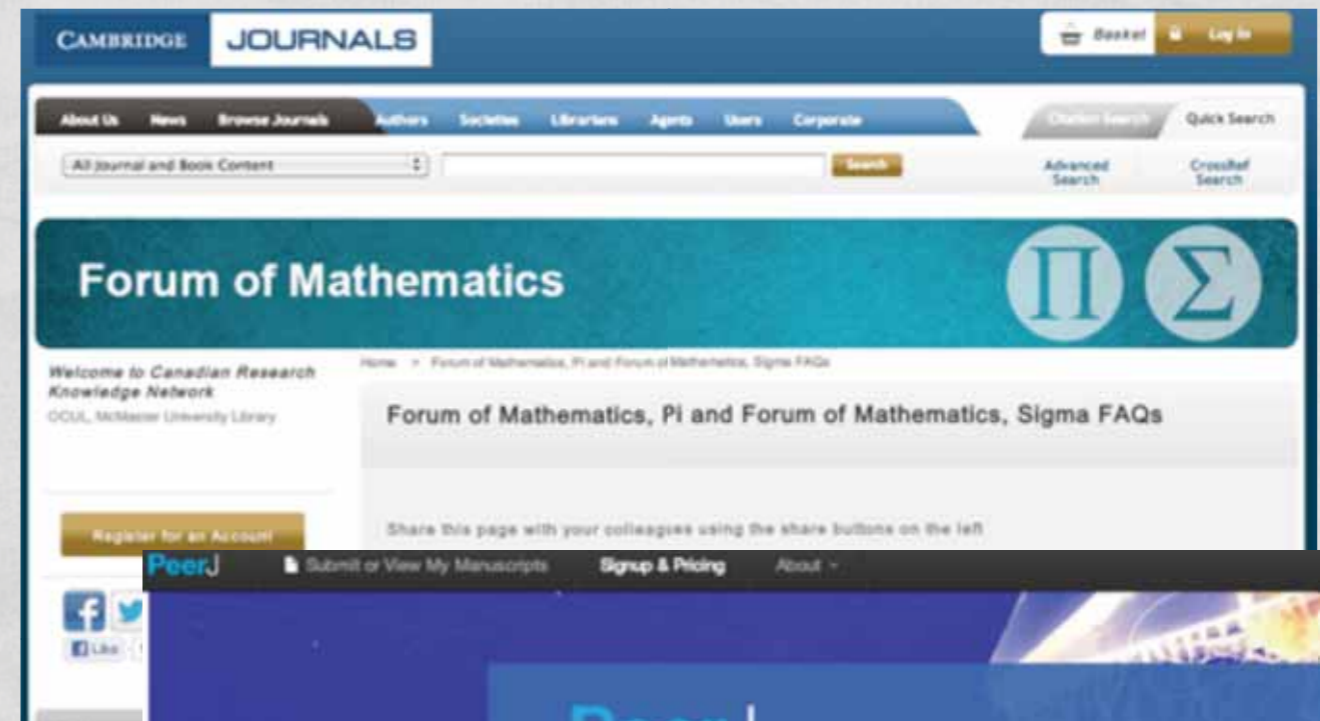
WHY DO WE PUBLISH IN JOURNALS?

- Communicate research results and ideas? NO!

- Archive research results and ideas? NO!

- Highlight really important ideas? NO!

- Quality control? YES *(somewhat)*

- Tenure, promotion and funding decisions? YES, YES and YES!

"Do we really want the editorial boards of Nature and Science to determine billions of dollars of research funding and tenure and promotion decisions for the entire world?"
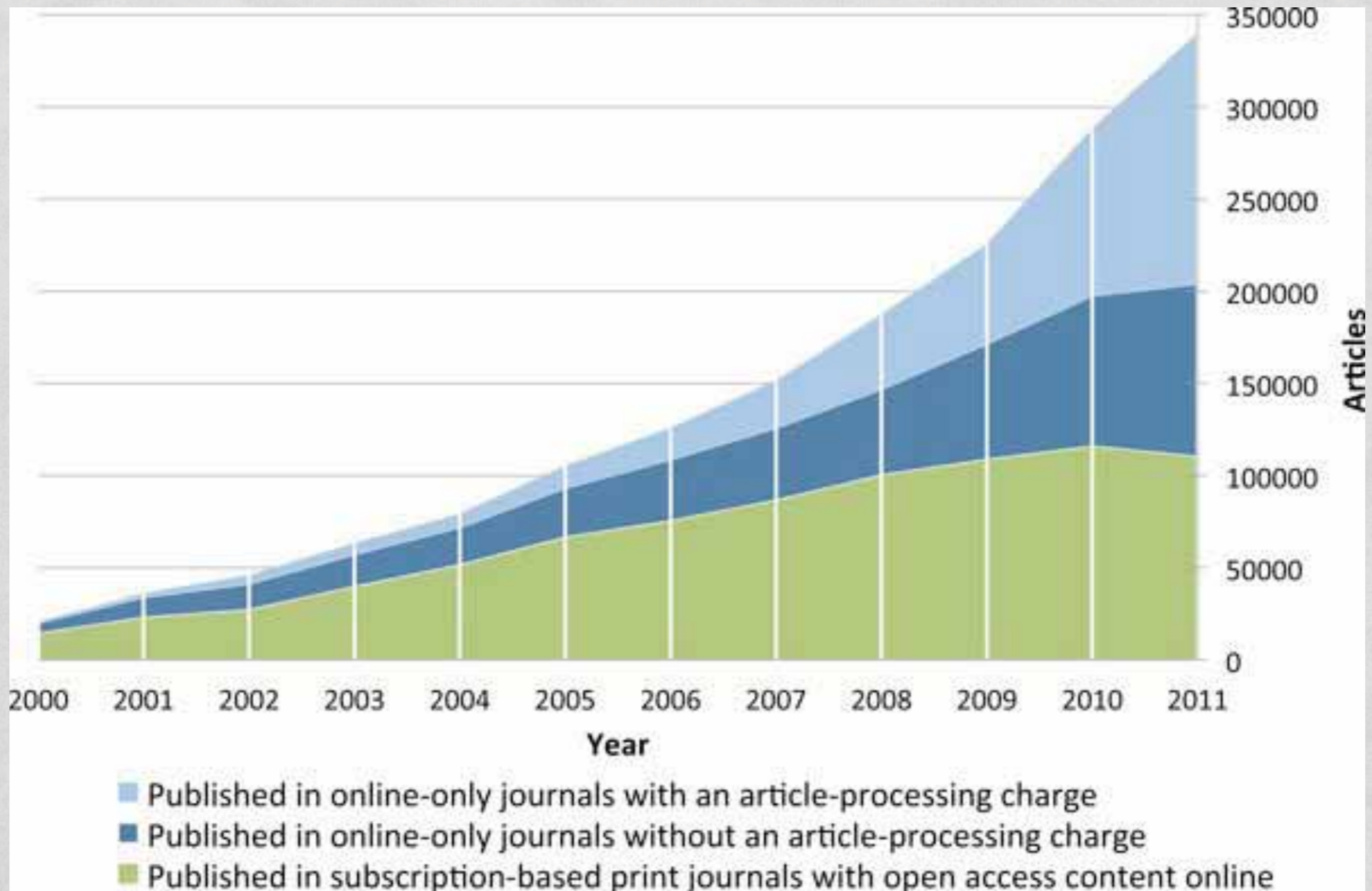
- Geoffrey Bodenhausen, Chemist, ENS/EPFL

FIRST STEPS

- Electronic only

- Multimedia

- Continuous publication

- ArXiv overlay journals *(Episciences)*

- Multiple subjects with separate editorial boards

- Multiple, hierarchical quality labels *(given by different editorial boards)*

RISE OF OPEN ACCESS PUBLISHING

Laasko & Björk, BMC Medicine 2012, **12**:124

MORE RADICAL CHANGES

- Open and continuous peer-review; revisions submitted in response to reviews

- Reviews submitted *after* publication *(no reason not to publish all papers)*

- *Anyone* can submit a review, *anyone* can read reviews

- Important papers accumulate reviews over time

- Uninteresting papers do not go through expensive peer-review

EVEN MORE RADICAL

- Open science: science done collaboratively online

- Process of discovery is visible

- Problem: how to share "credit" for ideas

- (Why) does it matter?

The polymath blog

September 10, 2012

Polymath7 research threads 4: the Hot Spots Conjecture

Filed under: hot spots, research — Terence Tao @ 7:28 pm

It's time for another rollover of the Polymath7 "Hot Spots" conjecture, as the previous research thread has again become full.

Activity has now focused on a numerical strategy to solve the hot spots conjecture for all acute angle triangles ABC. In broad terms, the strategy (also outlined in this document) is as follows. (I'll focus here on the problem of estimating the eigenfunction; one also needs to simultaneously obtain control on the eigenvalue, but this seems to be to be a somewhat more tractable problem.)
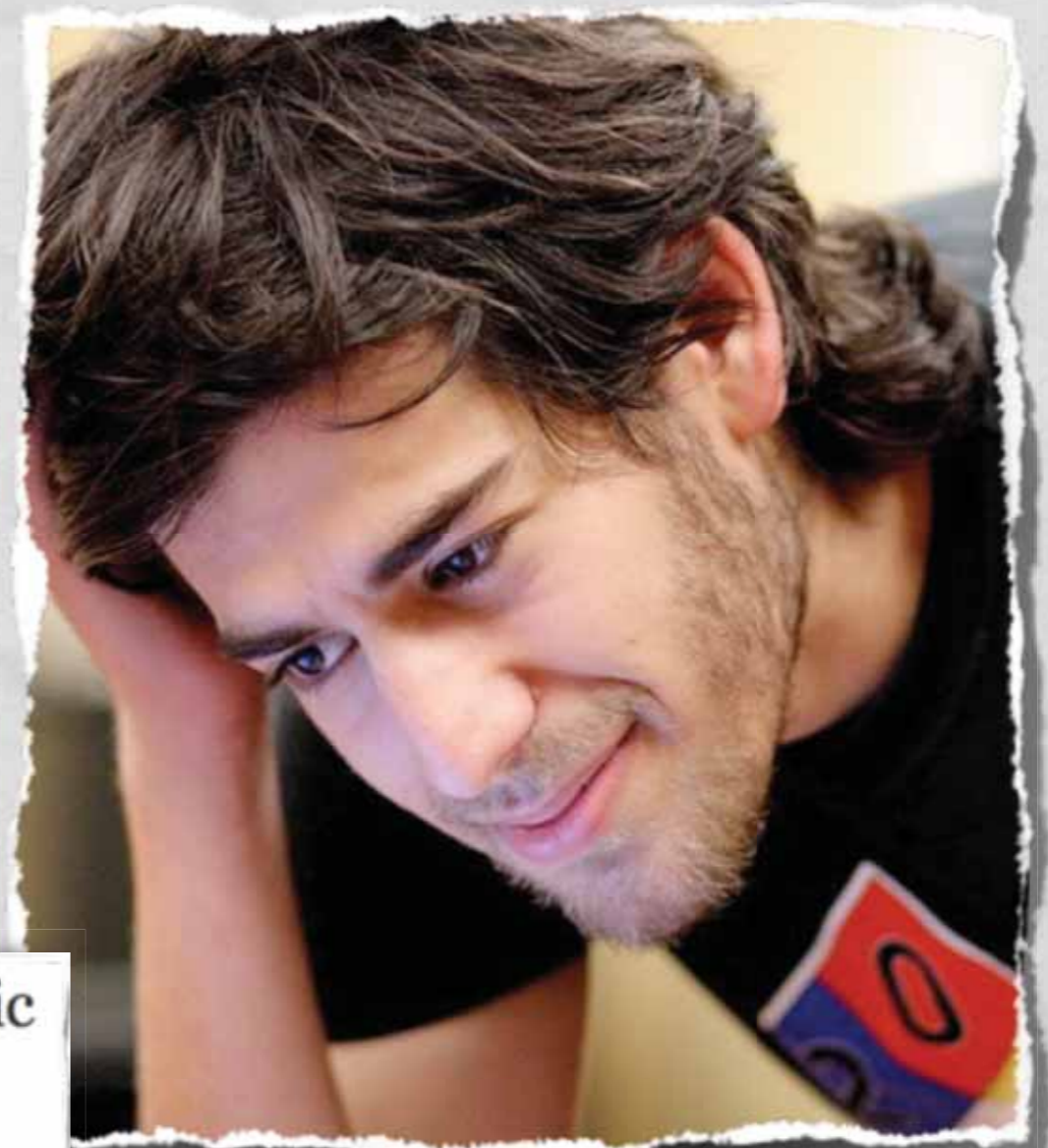
Recent Comments

Chris Evans on **Polymath7 research threads 4: ...**

Pytha on **How to use LaTeX**

THE STAKES ARE HIGH

- Open access threatens established interests

- US federal government charged Swartz for downloading millions of files from *JSTOR*

- Swartz faced 35 years prison despite *JSTOR* opposing prosecution!

- *JSTOR*'s goal is *"to foster widespread access to the world's body of scholarly knowledge"*

- Swartz drafted *RSS*, co-founded *Reddit,* launched

Aaron Swartz *(November 8, 1986 – January 11, 2013)*

Many JSTOR Journal Archives Now Free to Public

By Meredith Schwartz on ▣ January 9, 2013 💬 20 Comments

The archives of more than 1,200 journals are now available for limited free reading by the public, JSTOR announced today.

Library Journal

post on INFOdocket.com.

CONCLUSIONS

- Current system unsustainable, harms academics

- Funding agencies forcing shift to *Open Access*

- Publishing becomes *service* not *product* industry

- Economic model for academic publishing in flux

- New technologies enable academic communication not tied to traditional journal model